



Application No. 10/002,180
Declaration of Amir Satran under 37 CFR 1.132

IN THE U.S. PATENT AND TRADEMARK OFFICE

Application No.: 10/002,180	Confirmation No. 3617
Application of: SATRAN, et al.	Group Art Unit: 3724
Filing Date: December 5, 2001	Examiner: Kenneth E. Peterson.
Title: ROTARY CUTTING TOOL	Docket No. I084 1250 Customer No. 26158

DECLARATION OF AMIR SATRAN UNDER 37 CFR 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir or Madam:

I, Amir Satran, hereby declare that:

1. I am a citizen of Israel and reside at 6 Moran Street, 25147 Kfar Vradim, Israel.
2. I have been employed by Iscar, Ltd. for 27 years and I have a total of 29 years' experience in the design, development and production of cutting inserts and cutting tools. I am an inventor or co-inventor of approximately 70 U.S. Patents in this field.
3. I am familiar with a variety of the literature, common practices and products in the metal cutting tool industry worldwide.
4. I am a co-inventor of the above-identified patent application. I have reviewed the office action mailed April 21, 2004 in which the Examiner has rejected the claims over WO 00/02693, of which I was also a co-inventor.

5. The cutting insert in my WO 00/02693 patent application, has four side surfaces, of which two side surfaces at opposite ends of the cutting insert are operative. Thus, the cutting insert is two-way rotationally indexable about its central axis. Each operative surface, in an end view, has main cutting edges associated with the top and bottom surfaces of the cutting insert, a pair of auxiliary cutting edges associated with each side surface, and corner cutting edges connecting the main and auxiliary cutting edges.

6. In the April 21, 2004 office action, the Examiner suggests that it would be obvious to make all side surfaces identical and operative, thereby making the cutting insert four-way rotationally indexable about its central axis. If such a modification were made, then each of the four side surfaces would have a pair of auxiliary cutting edges. This would require that adjacent operative side surfaces share auxiliary cutting edges. In my experience, however, due to wearability, one skilled in the art would not design a cutting insert where it was expected that the same cutting edge be used in an identical manner, after the cutting insert was rotated into a different position. This is because the shared cutting edge would become worn when in the initial indexed position, and so would not be effective at cutting when rotated into a second indexed position.

7. In WO 00/02693, as seen in Fig. 6B, the insert receiving pocket abuts the cutting insert at two lateral portions 40 formed on the cutting insert's rear surface, and also along the cutting insert's side surface 8. This gives a stable "three-point" abutment.

8. If the four sides of my cutting insert in WO 00/02693 were identical, then each of the four side surfaces would have two such lateral portions 40 serving as positioning surfaces. In such case, the insert receiving pocket would seemingly abut the modified cutting insert at a total of four lateral portions, a first spaced apart pair on the 'rear surface' of the cutting insert and a second spaced apart pair on the 'side surface' of the cutting insert, the first pair and the second pair being transversely oriented relative to each other. In my experience, however, due to concerns about achieving consistent, stable seating during cutting operations, one skilled in the art would not normally attempt to provide such a "four-point" abutment in which four such spaced apart points of contact are provided.

9. I further declare that all statements made herein of my own knowledge and true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Date 10.08.04


